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Briefing for Carol Browner's talk in Detroit

Subject Allen Park Clay Mine Landfill

by S. M. Johnson 2/1/94

Background: In 1975 U.S. EPA discovered a federal discharge permit wastewater discharge violation for PCBs at the Ford Monroe Plant on the River Raisin, a large river located in Monroe County very near the farthest southeast extremity of the State of Michigan and approximately 20 miles north of Toledo Ohio. River sediments running as high as 42,000 ppm PCBs were eventually discovered in the vicinity of Ford plant pipe discharge pipes while PCB concentrations in abandoned sewer pipes leading from the plant to the river run to a maximum of about 90 ppm. The sediments are susceptible to regular disturbance by ship traffic and constitute the greatest threat to public health. The actual 44,000 cubic yard spill site extends 700 feet along the river bank adjacent to the plant site and out into the river 200 feet. The project area is entirely in the river channel and is situated approximately 1 mile upstream of Lake Erie's shores.

Since 1975 the State of Michigan and the U.S. EPA found continued violations at the plant and subsequently discovered elevated fish tissue PCB concentrations. In August 1992 the State of Michigan Department of Natural Resources (MDNR) asked the U.S. EPA for technical assistance to conduct a PCB cleanup for this particular portion of the river. Superfund is now conducting a "PRP-lead" removal action at this site and has proposed a preferred alternative that calls for off site disposal in a TSCA landfill. There are two landfills under consideration for disposal. One is the Model City TSCA Landfill in upstate New York and the other is a proposed TSCA landfill in Allen Park Michigan approximately 23 miles due north of the spill site in Monroe. The Model City alternative is a $16.2 million remedy and the Allen Park Clay Mine Landfill, if it is available for selection, is a $5.1 million remedy.

The Allen Park Clay Mine landfill in question is a large former clay mine site that was backfilled from the 1950's to the 70's with unclassified industrial wastes generated locally, mostly by Ford Motor Company. The landfill was subject to corrective actions under the Resource Conservation and Recovery Act (RCRA) for improper disposal and surface water breakouts. These areas were corrected, capped and closed by the late 1980's when a new round of landfilling was proposed for the site under RCRA and under solid waste regulations. Four new cells have been constructed since then. Two cells are for solid wastes and one cell was permitted under Michigan Act 64 hazardous waste regulations, filled and capped. The last cell was given a Michigan Act 64 approval after its construction and certification but because of Ford's waste minimization program the cell was never used and now stands empty. That approval has since expired so in a timely fashion, Ford

applied to the state for a new Act 64 approval in November of 1993 and applied for a Toxic Substances Control Act (TSCA) approval from U.S. EPA Region 5.

The TSCA approval is presently in review and the Regional Administrator has not made a decision regarding it. Although it has been substantially completed there are several issues that need to be considered before it can be recommended for approval. On a technical basis the landfill meets and exceeds TSCA requirements. The landfill is located in a unusual and hydrogeologically favorable site consisting of 40 to 60 feet of continuous water-tight silty glacial lake bed clays and a thin pressurized sandy unit below it capable of supporting artesian to flowing artesian wells in the vicinity of the Cell 2, now up for approval. The upward groundwater seepage through the clay pan acts as an effective barrier to any potential downward chemical diffusion from the landfill. Breakthrough models by Ford's consultants have been estimated at 700 to 7,000 years or more for 100x diluted material while worst possible case damage estimates to local water resources are tempered by the brackish, unsuitable nature of the local groundwater.

Local opposition to the landfill is considerable. Three public meetings have been held near the proposed landfill while the general opposition at each meeting continues to grow in size and strength. Technical questions have given way to procedural and political issues raised by local officials. Despite findings to the contrary by the Association for Toxic Substances and Disease Registry (ATSDR), lingering health and clean water questions remain in the eye of local TV and print coverage. Several 5 minute newscast features in Detroit stations recently covered families with histories of brain cancer and made categorical statements asserting eventual PCB contamination of local water treatment plants and waterways via discharges of leachate from Cell 2. Questions that arise during meetings often focus on nearby land values and why the burden for these expected losses should be covered by small homeowners while the profits and worker bonuses that Ford has recently reported seem so high.

Print coverage has focussed in a more balanced way on additional issues such as flood plain maps, threats to nearby municipal water delivery systems, water runoff along roadways, spills during transport and most importantly, continued use of the site after this superfund action is complete.

Issues and Answers

Issue 1: Brain cancer is an issue because of local family histories and because the ATSDR background survey showed slightly elevated incidences in the area.

Answer 1: Brain cancer is not an issue because the same ATSDR report showed no connection between the landfill and brain cancer and because PCBs are not considered a brain cancer

facilitator.

Issue 2: PCB contamination of waterways is an issue.
a) Local sewers
b) the Rouge river,
c) local basements,
d) the Detroit River,
e) Lake Erie,
f) local drinking water users
g) and Detroit municipal sludge

are all supposedly threatened by this action. These issues exist because Ford wants to discharge leachate from the landfill to a combined sewer system. This is a problem that is complicated by the fact that because under the Clean Water Act the sewer system is being prevented from pumping into the Rouge Rivers as a Publicly Owned Treatment Works (POTW) emergency flood bypass. The increased sewer storm water head thus unrelieved is thought to threaten local citizens with sewer backups of PCB contaminated water. Furthermore there is contention that clean water treatment plants do not treat for PCBs so discharges from the PCB landfill will eventually allow PCBs to enter the Detroit River, Lake Erie and municipal clean water system intakes through normal water intakes. Finally there are sludge disposal concerns that stem from the PCB leachate discharge plan that have been voiced on the part of Detroit Water and Sewerage District because their sludge may accumulate PCBs.

Answer 2: PCB contamination of waterways is not an issue of concern. The PCB contamination contentions listed above (a-f) are categorical assertions that do not recognize the relevance of numerical concentrations. All Ford's wastewater will be tested or treated to low numerical criteria under approval before discharge. The State of Michigan has indicated to the Detroit Water and Sewerage District (DWSD) that PCBs from Ford's outfall must not exceed 0.2 ug/l and that they must implement a PCB minimization plan that minimizes the risk of any impact to DWSD or to the environment but if a violation to DWSD's National Pollution Discharge Elimination System (NPDES) permit occurs that an exclusion will be granted to the Ford Allen Park Clay Mine Landfill if sampling at the landfill shows all non-detects at the 0.2 ug/l level for that respective time period and if the required minimization programs at the landfill are in effect. However, the proposed language sent to DWSD on December 22 by Russell J. Harding, Deputy Director of the MDNR was subsequently not accepted by John Scherbarth, attorney at the Office of The Attorney General of the State of Michigan so the issue remains unresolved, perhaps in part because DWSD has acknowledged that they have a PCB contaminated system and will not take any risks. The sludge disposal question has never really gone anywhere but it reappears during discussions from time to time.

Issue 3: Flood plain maps are an issue because a preliminary map was released that showed the landfill cell in the 100 year flood plain even though no other maps had ever done so. The map was replaced with a new map that showed no such 100 year flood plain so complaints of governmental manipulation of the data to suit the need have arisen.

Answer 3: The flood plain maps are not an issue because Ford has indicated that they will be responsible for keeping the waste out of the 100 year flood plain. The TSCA program elected to only use finalized Federal Emergency Management Agency (FEMA) maps and added a condition to the approval calling for protection from 100 year floods. On a technical bases, the area was being remapped and the contractor released a map that had not been adequately reviewed. There were problems in the water flow model and Senator Dingle and the local Corps of Engineers office reviewed the problem. The local Corps of Engineers office ran their own detailed survey around the whole landfill to prove the landfill elevations were accurate so that the flow model could be re-run with new stream bank data. Existing finalized maps show the landfill is not even within the 500 year flood plain.

Issue 4: The public response has been so negative it is hard to justify continuing the project and still claim that public input was relevant.

Answer 4: Although the public near the landfill remains negative it is a fact that the public input has changed the draft approval by putting in many more conditions.

Parties known to be objecting:

Mayor Michael Guido of Dearborn
Mayor Gerald Richards of Allen Park
Mayor Tom Coogan of Melvindale

Parties presently voicing concerns and doubts:

State Senator George Hart expresses considerable doubt for process
State Representative Robert A. Demarez recommends desert location